

## REMARKS

In the office action mailed from the United States Patent and Trademark Office March 17, 2005. The examining attorney rejected 8-10, 18, 19, 26-28, 30, 33, 36, 40, 411, 49-52, 57 and 58 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regarded as the invention; rejected claims 1-14, 16-22, 24-40, 42-45, 47-53, and 56-58 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,505,409 (“Wells”); rejected claims 1-14, 16-22, 24-43, 45, and 56-58 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,133,519 (“Falco”); rejected claims 54 and 55 under 35 U.S.C. § 103(a) as being unpatentable over either Wells or Falco; and rejected claims 15, 23 and 46 under 35 U.S.C. § 103(a) as being unpatentable over Wells in view of U.S. Patent No. 5,540,406 (“Occhipinti”). Accordingly, applicant respectfully provides the following:

### Claim Rejections Under 35 U.S.C. § 112

Applicant thanks the Examiner for noting the indefinite language throughout the claim set. Applicant has addressed each of the concerns identified by the examining attorney by amending claims 8-10, 18, 19, 26-28, 30, 33, 36, 40, 41, 49-52, 57 and 58 in order to definitely and particularly point out and distinctly claim the subject matter which applicant regards as the invention.

### Rejections Under 35 U.S.C. § 102

The prior art cited by the examiner fails to teach or suggest the claim or limitations of the present invention. “A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently described, in a single prior art reference.” Verdegall Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Further, to anticipate a claim “[t]he identical invention must be shown as a complete detail as is contained in the...claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989).

The method disclosed in Wells comprises providing “steps gradually sloping outwardly in the direction of flight” (see claim 1 FIG. 3). Accordingly, Wells does not teach nor suggest the

provision of “orthogonal pressure recovery drops” as does the independent claims of the present invention. Thus, the present invention is novel over Wells.

The method disclosed in Falco comprises of providing “rearward facing micro-steps” between which are located flat horizontal surfaces (see figures). Falco does not teach nor suggest the provision of a “trailing edge that defines and extends from the base of [the] pressure recovery drop that provides a trailing flow boundary for [the] fluid flow” (see claims 1 and FIG.’s 2a and 4 for the present invention). The present invention provides a trailing edge that is curved in accordance with Bernoulli’s principal. Thus, the present invention is clearly novel over Falco.

By providing orthogonal pressure recovery drops interconnected by curved trailing edges, which provide trailing flow boundaries in accordance with Bernoulli’s principal, the present invention provides a new and inventive way of regulating external fluid flow over an object surface.

#### Rejections Under 35 U.S.C. § 103a

Wells and Falco fail to teach or suggest all the claim limitations found in the present invention. To establish a *prima facie* case of obviousness, the prior art references must teach or suggest all of the claim limitations. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). As noted above, Wells and Falco fail to disclose a system comprising orthogonal pressure recovery drops and curved trailing edges. Accordingly, Wells and Falco fail to render the claims of the present invention obvious.

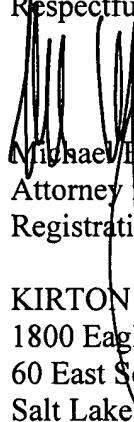
Occhipinti additionally fails to disclose limitations of orthogonal pressure recovery drops interconnected by curved trailing edges. Accordingly, the additional recitation of Occhipinti fails to teach or suggest the entire claim limitations found in the present invention. Accordingly, applicant respectfully submits that the presently amended claim set of the present invention is novel and non-obvious.

CONCLUSION

Applicants submit that the amendments made herein do not add new matter and that the claims are now in condition for allowance. Accordingly, Applicants request favorable reconsideration. If the Examiner has any questions or concerns regarding this communication, the Examiner is invited to call the undersigned.

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Respectfully submitted,

  
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